

03/09/2001

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 10/005,216

**ENTERED**

CRF Processing Date  
Edited by: M  
Verified by:

12/31/2001

(STIC stat)

- Changed a file from non-ASCII to ASCII
- Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- Edited a formal error in the Current Application Data section, specifically:
- Edited the Current Application Data section with the actual current number. The number inputted by the applicant was  the prior application data; or  other \_\_\_\_\_
- Added the mandatory heading and subheadings for "Current Application Data".
- Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- Changed the spelling of a mandatory field (the headings or subheadings), specifically:
- Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
- Inserted or corrected a nucleic number at the end of a nucleic line SEQ ID NO's edited:
- Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- Inserted colons after headings/subheadings. Headings edited included ..
- Deleted extra, invalid, headings used by an applicant, specifically:
- Deleted:  non-ASCII "garbage" at the beginning/end of files;  secretary initials/filename at end of file;  page numbers throughout text;  other invalid text, such as \_\_\_\_\_
- Inserted mandatory headings, specifically:
- Corrected an obvious error in the response, specifically:
- Edited identifiers where upper case is used but lower case is required, or vice versa.
- Corrected an error in the Number of Sequences field, specifically:
- A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected:
- Other:

Examiner: The above corrections must be communicated to the applicant in the first Office Action! DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING  
PATENT APPLICATION · US/10/005,216

DATE: 12/31/2001  
TIME: 18:43:02

Input Set : A:\PTO.AMC.txt  
Output Set: N:\CRF3\12312001\J005216.raw

4 <110> APPLICANT: Allen, Keith D.  
5 <120> TITLE OF INVENTION: TRANSGENIC MICE CONTAINING CALCIUM ION  
7 CHANNEL (Trp6) GENE DISRUPTIONS  
10 <130> FILE REFERENCE: R-881  
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/005,216  
C--> 12 <141> CURRENT FILING DATE: 2001-12-04  
12 <150> PRIOR APPLICATION NUMBER: US 60/280,373  
13 <151> PRIOR FILING DATE: 2001-03-29  
15 <150> PRIOR APPLICATION NUMBER: US 60/255,227  
16 <151> PRIOR FILING DATE: 2000-12-11  
18 <160> NUMBER OF SEQ ID NOS: 4  
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
22 <210> SEQ ID NO: 1  
23 <211> LENGTH: 3261  
24 <212> TYPE: DNA  
25 <213> ORGANISM: Mus musculus  
27 <400> SEQUENCE: 1  
28 cgcctgtgcc ctctgcctgg gagcctgggg cgcctgtct gcgcggtccg gatgcgtca 60  
29 qgtcaaggtt ccttcgcgg ctgtctcca aeccccataac tagtgacttc cactgtggcg 120  
30 qgcagggaag ccattggcag aaccttagcca gtcaggaatc tgcatacttt ccctcattat 180  
31 cctctccctg gcattgttt gtcgggtcc agtcagttt gtgacgcggc cccttcctcc 240  
32 caggttggga tccacggaag caggggtgca ggccggccag gcactgtgcc atgagccaga 300  
33 qcccgaggtt cgtgaccggg agggggggct ctctaaaggc tgcccttggc gccggcaccc 360  
34 qgcgcacacga gagccaggac tatttgctga tggacgagct gggagacgac ggctacccgc 420  
35 agtcaccgtt gccaccgtat ggetactacc ccaagcttccg ggttaatgaa aacagactga 480  
36 ctcaccggcg gcagacgatt cttcgtgaga agggaaagaag gttagctaatt cggggaccag 540  
37 catacatgtt taatgatcat tcaacaaggc tgtctattga ggaagaacgc tttctagatg 600  
38 cagttgaata tggcaacatc ccagtggctt ggaagatgct agaagagtgt cattccctca 660  
39 atgttaactg tgtggattac atgggccaga atgcctaca gctggctgtg gccaatgagc 720  
40 acttggaaat cacagaqctq ctactcaaga aggaaaaactt gtctcgagtt gggatgttt 780  
41 tactttttagc cattagtaaa ggttatgtac qqatttgtgg gcaatcetc aaccatccat 840  
42 cttttgtgtca aggaaaaagg ttagegacaa qccccagccca gtctgaactt cagcaagatg 900  
43 acttttatgc ctatgatgaa gatgggacgc gttctcca tyatgtgact ccaatcatc 960  
44 tcgtgcaca ttgccaggaa tatgaaatttgc tgcataccct cctgagaaag ggtgcggga 1020  
45 ttgagcgcc tcattgattac ttctgcaagt gtacagaatg cagccagaag cagaagcatg 1080  
46 attccttcag caactctaga tccaggatca atgcatacaa aggtctggca agtccagcat 1140  
47 acctgtcatt gtccagtqaa gatccagtca tgactgctt agaacttagc aatgagctgg 1200  
48 cagtgttgc caacattgag aaagagttca agaatgacta caggaagctq tctatgcagt 1260  
49 gcaaggattt cggttgggt ctcttgacc tctgcagaaa cacagaggaa gtggaggcca 1320  
50 tcctgaatgg ggatgcagag actcgccagc cggggactt cggccgtcca aatctcagcc 1380  
51 gttaaaaact tgctattaag gatgaagttaa aaaaatttgc ggctcatcca aactgtcagc 1440  
52 aacaqcteet gtccatatgg tatgagaacc tctctggttt acggcagcag accatggcag 1500  
53 tgaagttct cgtggtcctt gctgttgcctt ttggattgcc cttcctggct ctcataact 1560  
54 qgtgtgtcc ttgcagcaag atggggaaaga tattgccag accgttcatg aagttttag 1620  
55 cacacgcage ctccttcacc atttcctgg ggctgtcgt catgaatgca gctgacagat 1680  
56 ttgaaggcac caagctcctc cctaattgaaa ccagcacaga taatgcaagg cagctgttca 1740  
57 qqatqaaaac atcctqtttc tcatqqatgg aqatqctcat tatacctqq gtaataaggca 1800

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/005,216

DATE: 12/31/2001  
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Input Set : A:\PTO.AMC.txt  
Output Set: N:\CRF3\12312001\J005216.raw

58 t~~gatatggc~~ tgaatgtaaa gaaatctgga ctcaaggccc caaagaatac ttatttgagt 1860  
 59 t~~tgtggatat~~ gtttgacttt ggaat~~ctgg~~ caatcttgc agcatcattc attgcaagat 1920  
 60 ttatggcg~~ttt~~ ctggcatgca tccaaagctc agagcatcat t~~gat~~gcaa~~at~~ gatactttaa 1980  
 61 a~~ggattttgac~~ aaaagtcaca ctgggggaca acgttaaata ctacaatctg gccaggataa 2040  
 62 a~~gtggggacc~~ tactgatect cagatcatct ctgaagg~~tct~~ ttatgcaatc gctgtgg~~ttt~~ 2100  
 63 t~~hagtttctc~~ cagaata~~tag~~ tacat~~ttt~~ac cagcaa~~at~~g~~a~~ a~~get~~ttgga cctctgeaga 2160  
 64 t~~tttcaatttg~~ aagaac~~at~~g~~t~~ aaagat~~at~~et t~~caa~~at~~tt~~at ggt~~cata~~at~~tt~~ at~~cat~~gg~~tgt~~ 2220  
 65 t~~hgtagec~~tt tatgattgga at~~gttcaacc~~ tttact~~ccta~~ ctacattggc gaaaaacaga 2280  
 66 at~~gaagcatt~~ cacaac~~agg~~tt gaggaa~~agg~~tt ttaagaca~~ct~~ gttctgg~~gt~~ at~~tttggc~~ 2340  
 67 tttotga~~gt~~ ga~~gt~~c~~at~~g~~t~~ gtcatta~~act~~ acaatcaca~~a~~ gtcattgaa aacatcg~~ct~~ 2400  
 68 a~~ugttctgt~~a tgg~~tt~~totat aat~~gt~~caca~~a~~ tgg~~tcatt~~gt t~~tg~~ctaa~~at~~ at~~gtt~~att~~tg~~ 2460  
 69 c~~gatgat~~caa tagt~~catt~~ cag~~gaa~~att~~g~~ ag~~gatgat~~gc g~~gacgtgg~~g tg~~ga~~g~~ttt~~g 2520  
 70 caagg~~ggcc~~aa att~~gt~~gg~~ttt~~ t~~ctactt~~g aggaggg~~g~~ aacact~~tc~~ct g~~tc~~cc~~ctt~~ca 2580  
 71 at~~cttgtacc~~ a~~agtcc~~aaaa t~~cett~~g~~c~~ttt at~~ctc~~tatt gaa~~att~~taa~~g~~ aa~~at~~gg~~at~~gt 2640  
 72 g~~tgag~~ct~~at~~ ccagg~~gt~~caa a~~gca~~agg~~ct~~ t~~cca~~aga~~ga~~ t~~gc~~ag~~agat~~g a~~aca~~ag~~agaa~~ 2700  
 73 at~~gaagaaaa~~ gaa~~attt~~g~~ga~~ att~~cagg~~aa g~~tcac~~ga~~aa~~ c~~ttt~~ca~~aaa~~ t~~ttt~~c~~actt~~g 2760  
 74 a~~aaaaatca~~ g~~ttggcacac~~ a~~aca~~a~~aca~~at ca~~gt~~aca~~ag~~ g~~agct~~c~~aga~~ g~~attat~~c~~att~~ 2820  
 75 taaatag~~ttt~~ c~~agtaacc~~ct c~~caag~~aca~~at~~ at~~cag~~aaa~~at~~ c~~at~~g~~a~~ag~~aga~~ c~~tcatt~~aaa 2880  
 76 q~~atatgtatt~~ g~~caggccc~~ag att~~gata~~agg a~~gagc~~gat~~ga~~ g~~gt~~ga~~at~~g~~aa~~ g~~ggga~~att~~tg~~ 2940  
 77 a~~ggaaattaa~~ g~~caagacat~~c t~~caagtct~~cc g~~ttat~~g~~a~~act c~~tt~~g~~a~~ag~~ag~~ aa~~at~~ca~~caga~~ 3000  
 78 a~~ctcagaaga~~ c~~tcagcagag~~ c~~tcatt~~g~~aa~~ a~~a~~c~~t~~cg~~gg~~g~~g~~ g~~agactgt~~cg t~~tag~~g~~ccaa~~ 3060  
 79 a~~gctggagga~~ a~~gcccgcaga~~ tag~~gcagag~~ c~~ccctcag~~aa g~~tgc~~at~~attt~~ at~~tttct~~ca~~c~~ 3120  
 80 t~~tgaagccat~~ att~~at~~tttct~~t~~ g~~actt~~t~~attt~~ t~~taagt~~g~~tc~~ a~~at~~gata~~aaa~~ ag~~at~~gt~~taa~~ 3180  
 81 c~~tgataact~~ g~~gatcatt~~ta g~~atc~~c~~taat~~ at~~caag~~c~~ttt~~ t~~tggg~~g~~agatt~~ aa~~att~~g~~catt~~ 3240  
 82 q~~ctgaggg~~ct a~~aca~~att~~gt~~ 3261  
 84 <210> SEQ ID NO: 2  
 85 <211> LENGTH: 930  
 86 <212> TYPE: PRT  
 87 <213> ORGANISM: Mus musculus  
 88 <400> SEQUENCE: 2  
 89 Met Ser Gln Ser Pro Arg Phe Val Thr Arg Arg Gly Gly Ser Leu Lys  
 90       1               5               10               15  
 91 Ala Ala Pro Gly Ala Gly Thr Arg Arg Asn Glu Ser Gln Asp Tyr Leu  
 92       20               25               30  
 93 Leu Met Asp Glu Leu Gly Asp Asp Gly Tyr Pro Gln Leu Pro Leu Pro  
 94       35               40               45  
 95 Pro Tyr Gly Tyr Tyr Pro Ser Phe Arg Gly Asn Glu Asn Arg Leu Thr  
 96       50               55               60  
 97 His Arg Arg Gln Thr Ile Leu Arg Glu Lys Gly Arg Arg Leu Ala Asn  
 98       65               70               75               80  
 99 Arg Gly Pro Ala Tyr Met Phe Asn Asp His Ser Thr Ser Leu Ser Ile  
 100       85               90               95  
 101 Glu Glu Glu Arg Phe Leu Asp Ala Val Glu Tyr Gly Asn Ile Pro Val  
 102       100               105               110  
 103 Val Trp Lys Met Leu Glu Glu Cys His Ser Leu Asn Val Asn Cys Val  
 104       115               120               125  
 105 Asp Tyr Met Gly Gln Asn Ala Leu Gln Leu Ala Val Ala Asn Glu His  
 106       130               135               140  
 107 Leu Glu Ile Thr Glu Leu Leu Lys Lys Glu Asn Leu Ser Arg Val  
 108

## RAW SEQUENCE LISTING

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\12312001\J005216.raw

109	145	150	155	160
110	Gly Asp Ala Leu Leu Leu Ala Ile Ser Lys Gly Tyr Val Arg Ile Val			
111	165	170	175	
112	Glu Ala Ile Leu Asn His Pro Ser Phe Ala Glu Gly Lys Arg Leu Ala			
113	180	185	190	
114	Ihr Ser Pro Ser Gln Ser Glu Leu Gln Gln Asp Asp Phe Tyr Ala Tyr			
115	195	200	205	
116	Asp Glu Asp Gly Thr Arg Phe Ser His Asp Val Thr Pro Ile Ile Leu			
117	210	215	220	
118	Ala Ala His Cys Gln Glu Tyr Glu Ile Val His Ihr Leu Leu Arg Lys			
119	225	230	235	240
120	Gly Ala Arg Ile Glu Arg Pro His Asp Tyr Phe Cys Lys Cys Thr Glu			
121	245	250	255	
122	Cys Ser Gln Lys Gln Lys His Asp Ser Phe Ser His Ser Arg Ser Arg			
123	260	265	270	
124	Ile Asn Ala Tyr Lys Gly Leu Ala Ser Pro Ala Tyr Leu Ser Leu Ser			
125	275	280	285	
126	Ser Glu Asp Pro Val Met Thr Ala Leu Glu Leu Ser Asn Glu Leu Ala			
127	290	295	300	
128	Val Leu Ala Asn Ile Glu Lys Glu Phe Lys Asn Asp Tyr Arg Lys Leu			
129	305	310	315	320
130	Ser Met Gln Cys Lys Asp Phe Val Val Gly Leu Leu Asp Leu Cys Arg			
131	325	330	335	
132	Asn Thr Glu Glu Val Glu Ala Ile Leu Asn Gly Asp Ala Glu Thr Arg			
133	340	345	350	
134	Gln Pro Gly Asp Phe Gly Arg Pro Asn Leu Ser Arg Leu Lys Leu Ala			
135	355	360	365	
136	Ile Lys Asp Glu Val Lys Lys Phe Val Ala His Pro Asn Cys Gln Gln			
137	370	375	380	
138	Gln Leu Leu Ser Ile Trp Tyr Glu Asn Leu Ser Gly Leu Arg Gln Gln			
139	385	390	395	400
140	Thr Met Ala Val Lys Phe Leu Val Val Leu Ala Val Ala Ile Gly Leu			
141	405	410	415	
142	Pro Phe Leu Ala Leu Ile Tyr Trp Cys Ala Pro Cys Ser Lys Met Gly			
143	420	425	430	
144	Lys Ile Leu Pro Arg Pro Phe Met Lys Phe Val Ala His Ala Ala Ser			
145	435	440	445	
146	Phe Thr Ile Phe Leu Gly Leu Leu Val Met Asn Ala Ala Asp Arg Phe			
147	450	455	460	
148	Glu Gly Thr Lys Leu Leu Pro Asn Glu Thr Ser Thr Asp Asn Ala Arg			
149	465	470	475	480
150	Gln Leu Phe Arg Met Lys Thr Ser Cys Phe Ser Trp Met Glu Met Leu			
151	485	490	495	
152	Ile Ile Ser Trp Val Ile Gly Met Ile Trp Ala Glu Cys Lys Glu Ile			
153	500	505	510	
154	Trp Thr Gln Gly Pro Lys Glu Tyr Leu Phe Glu Leu Trp Asn Met Leu			
155	515	520	525	
156	Asp Phe Gly Met Leu Ala Ile Phe Ala Ala Ser Phe Ile Ala Arg Phe			
157	530	535	540	

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158 Met Ala Phe Trp His Ala Ser Ile Asn Gln Ser Ile Ile Asp Ala Asn  
 159 545 550 555 560  
 160 Asp Thr Leu Lys Asp Leu Thr Lys Val Thr Leu Gly Asp Asn Val Lys  
 161 565 570 575  
 162 Tyr Tyr Asn Leu Ala Arg Ile Lys Trp Asp Pro Thr Asp Pro Gln Ile  
 163 580 585 590  
 164 Ile Ser Glu Gly Leu Tyr Ala Ile Ala Val Val Leu Ser Phe Ser Arg  
 165 595 600 605  
 166 Ile Ala Tyr Ile Leu Pro Ala Asn Glu Ser Phe Gly Pro Leu Gln Ile  
 167 610 615 620  
 168 Ser Leu Gly Arg Thr Val Lys Asp Ile Phe Lys Phe Met Val Ile Phe  
 169 625 630 635 640  
 170 Ile Met Val Phe Val Ala Phe Met Ile Gly Met Phe Asn Leu Tyr Ser  
 171 645 650 655  
 172 Tyr Tyr Ile Gly Ala Lys Gln Asn Glu Ala Phe Thr Thr Val Glu Glu  
 173 660 665 670  
 174 Ser Phe Lys Thr Leu Phe Trp Ala Ile Phe Gly Leu Ser Glu Val Lys  
 175 675 680 685  
 176 Ser Val Val Ile Asn Tyr Asn His Lys Phe Ile Glu Asn Ile Gly Tyr  
 177 690 695 700  
 178 Val Leu Tyr Gly Val Tyr Asn Val Thr Met Val Ile Val Leu Leu Asn  
 179 705 710 715 720  
 180 Met Leu Ile Ala Met Ile Asn Ser Ser Phe Gln Glu Ile Glu Asp Asp  
 181 725 730 735  
 182 Ala Asp Val Glu Trp Lys Phe Ala Arg Ala Lys Leu Trp Phe Ser Tyr  
 183 740 745 750  
 184 Phe Glu Glu Gly Arg Thr Leu Pro Val Pro Phe Asn Leu Val Pro Ser  
 185 755 760 765  
 186 Pro Lys Ser Leu Leu Tyr Leu Leu Lys Phe Lys Lys Trp Met Cys  
 187 770 775 780  
 188 Glu Leu Ile Gln Gly Gln Lys Gln Gly Phe Gln Glu Asp Ala Glu Met  
 189 785 790 795 800  
 190 Asn Lys Arg Asn Glu Glu Lys Lys Phe Gly Ile Ser Gly Ser His Glu  
 191 805 810 815  
 192 Asp Leu Ser Lys Phe Ser Leu Asp Lys Asn Gln Leu Ala His Asn Lys  
 193 820 825 830  
 194 Gln Ser Ser Thr Arg Ser Ser Glu Asp Tyr His Leu Asn Ser Phe Ser  
 195 835 840 845  
 196 Asn Pro Pro Arg Gln Tyr Gln Lys Ile Met Lys Arg Leu Ile Lys Arg  
 197 850 855 860  
 198 Tyr Val Leu Gln Ala Gln Ile Asp Lys Glu Ser Asp Glu Val Asn Glu  
 199 865 870 875 880  
 200 Gly Glu Leu Lys Glu Ile Lys Gln Asp Ile Ser Ser Leu Arg Tyr Glu  
 201 885 890 895  
 202 Leu Leu Glu Glu Lys Ser Gln Asn Ser Glu Asp Leu Ala Glu Leu Ile  
 203 900 905 910  
 204 Arg Lys Leu Gly Glu Arg Leu Ser Leu Glu Pro Lys Leu Glu Glu Ser  
 205 915 920 925  
 206 Arg Arg

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Input Set : A:\PTO.AMC.txt  
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207 930  
210 <210> SEQ ID NO: 3  
211 <211> LENGTH: 200  
212 <212> TYPE: DNA  
213 <213> ORGANISM: Artificial Sequence  
215 <220> FEATURE:  
216 <223> OTHER INFORMATION: Targeting vector  
218 <400> SEQUENCE: 3  
219 tcctcaattc taactgcatt tcttctggaa aagaataaaa cgattcacca gagctccaga 60  
220 ggatagccca agctgagttg ttttaatca aatcattctg tgtgctgtct cacccttagt 120  
221 ttgttgttca tccaagctgt cagcaacagc tcctgtccat atggtatgag aacctctctg 180  
222 gtttacggca geagaccatg 200  
224 <210> SEQ ID NO: 4  
225 <211> LENGTH: 200  
226 <212> TYPE: DNA  
227 <213> ORGANISM: Artificial Sequence  
229 <220> FEATURE:  
230 <223> OTHER INFORMATION: Targeting vector  
232 <400> SEQUENCE: 4  
233 tcgtggtcct tgctgttgcc attggattgc ctttcctggc tctcatatac tggtgtgtc 60  
234 ctgcagcaa ggtatgtctg tgagtctgc agtccatctg tagttgaatt ctgtccagca 120  
235 ggcaaagata tagtccaaa atgaaaatat gatttgaagt acacaggttc acataatctt 180  
236 tctatttgg tgagaatttc 200

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/005,216

DATE: 12/31/2001

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\12312001\J005216.raw

L:12 M:270 C: Current Application Number differs. Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date